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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,957	02/09/2004	Naga Bhushan	030352	1612

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QUALCOMM INCORPORATED
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EXAMINER	
NGUYEN, HANH N	

ART UNIT	PAPER NUMBER
2616	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/775,957	BHUSHAN ET AL.	
	Examiner	Art Unit	
	Hanh Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Application filed on 2/9/04*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claim 21, the word "means" is preceded by the word(s) "receiving indications of signal quality on line 2"; " selecting a first user station on line 4"; "constructing a first packet on line 6" ; " superimposing a second packet on line 8" ; transmitting the first and second packets simultaneously on line 10" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Regarding claim 21, there are not description elements describing the word "means" on each of lines 2, 4, 6, 8 and 10.

Regarding claim 1, 11, 21, 25, 30, applicant is required to provide relationships between "signaling data for the firsrt user station; application data for the second user station" and "indications of signal quality associated with a plurality of user stations".

Claim Objections

Claim 18 is objected to because of the following informalities:

claim 18 depends on itself (claim 18). Examiner assumes claim 18 depends on claim 11. Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Claims 1, 10, 11, 21, 25, 30, 34, 40, 46, 49 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 11, 14, 19, 23, 26 of copending Application No. 10/782,186. Although the conflicting claims are not identical, they are not patentably distinct from each other because other than similar claimed limitations addressed, the instant application requires constructing a first packet containing a signaling data for the first user and application data for the second user; superimposing a second packet upon the first packet, the second packet containing application data for the first user; while the copending application addresses assignning a channel segment to be used to communicate superimposed signals corresponding to at least two wireless terminals having different channel qualities. It is well-known to one skilled in the art that assignning superimposed signals to at least two wireless terminals having different signal qualities as shown in the copending application is similar to superposing coding technique claimed in the claimed invention since superposing coding is to lay a coded higher data rate information on a different coded lower data rate information. The data rate information can be equivalent to signaling data allocated to wireless terminal (see claim 1 in the instant application) ; and the

coded information can be equivalent to application data allocated to the wireless terminal (see claim 1 in the instant application).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 11, 21, 25, 30, 34 and 40 are arejected under 35 USC 102(e) as being anticipated Shattil (Us Pub No. 2004/0086027 A1).

In claims 1, 3, 4, 11, 14, 21, 25, 30, 34, 40, 46, 47, 48 and 49, Shattil discloses a method for processing data in a communication system (see fig.13A), comprising receiving indications of signal quality associated with a plurality of user stations (see fig.13A; paragraph [0206]; base station 1310 receives channel quality assessments from each subscribers 1300); selecting a first user station and a second user station to receive data from a base station, based on the indications of signal quality (see paragraph [0206]; base station 1310 selects subcarriers 1315; modulation schemes 1317 having different coding rates 1319 for transmission to each subscriber based on corresponding channel conditions); constructing a first packet containing signaling data (

modulation schemes & coding rates; claims 3&4) for the first user station and application data for the second user station; super-imposing a second packet upon the first packet, the second packet containing application data for the first user station (see paragraph [0230] and [0231]; base station 1310 uses time division multiplexing method to transmit packets sequences based on users' channel quality); and transmitting the first and second packets simultaneously from the base station to the first and second user stations (by transmitting packets via TDM addressed above).

In claims 6, 17, 19, 23, 33, Shattil discloses measuring, at each of the plurality of user stations, quality of signals received from the base station (see paragraph[0209]; subscribers 1300 measures channel quality relative to base station 1310); and communicating information representing the measured quality to the base station (subscriber 1300 requests the base station 1310 to provide the best channel quality).

In claims 7, Shattil discloses determining a desired data rate supportable by the respective user station, based on the measured quality (see paragraph [0206]; based on channel condition, base station 1310 coding rates for transmission to subscribers) ; and sending a message indicating the desired data rate from the respective user station to the base station(see paragraph 0209, base station 1310 schedules packet transmissions at a data rate selected by the subscriber 1300).

Claims 2, 5, 8, 10, 12, 13, 15, 16, 26-28, 31, 32, 35-39, 41-45 and 50 are rejected due to their dependency to parent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9, 18, 24 and 29 are rejected under 35 USC 103(a) as being unpatentable over Shattil in view of Jiang et al. (US Pat. 7,046,678 B2).

In claims 9, 18, 24, 29, Shattil does not disclose a table used to keep track of signal quality associated with user stations. Jiang et al. discloses in col.5, lines 55-65 table 1 describing different channel conditions for users correspondings to modulation schemes (a table used to keep track of signal quality associated with user stations). Therefore, it would have been obvious to one skilled in the art to combine the table of Jiang et al. into the Shattil 's invention to keep track current signal quality associated with users. The motivation is to adjust signal quality in response to network capacity and signal fluctuations of the users.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ue et al. (US pat. 6,973,289 B2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-FRiday from 8:30 to.4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild, can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen

HANH NGUYEN
PRIMARY EXAMINER